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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,386	12/19/2005	Junji Morita	070365-0019	1649
20277 7590 08/04/2009 MCDERMOTT WILL & EMERY LLP 600 13TH STREET, N.W. WASHINGTON, DC 20005-3096			EXAMINER MARTIN, ANGELA J	
			ART UNIT	PAPER NUMBER
			1795	
			MAIL DATE	DELIVERY MODE
			08/04/2009	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/561,386

**Applicant(s)**

MORITA ET AL.

**Examiner**

ANGELA J. MARTIN

**Art Unit**

1795

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

### **DETAILED ACTION**

This Office Action is responsive to the Remarks filed on March 30, 2009. Applicant's arguments, see pp. 2-4, filed 3/30/09, with respect to the rejection(s) of claim(s) 1-10 under 35 USC 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made as described below.

#### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki Akira, JP 62-190660.

Akira teaches a fuel cell system comprising: a fuel cell which generates electric power from a fuel gas and an oxidizing agent gas; a fuel gas supplying means which supplies the said fuel gas into the said fuel cell on the anode side thereof; an oxidizing agent gas supplying means which supplies the said oxidizing agent gas into the said fuel cell on the cathode side thereof; a raw material gas supplying means which supplies a gas of raw material of the said fuel gas into the said fuel cell; and a control

means which controls the said fuel gas supplying means, the said oxidizing agent gas supplying means and the said raw material gas supplying means, wherein the said control means controls during the starting of electricity generation of the said fuel cell such that the said raw material gas supplying means purges the said fuel cell at least on the cathode side thereof with the said raw material gas before the said oxidizing agent gas supplying means and the said fuel gas supplying means supply the said fuel gas and the said oxidizing agent gas into the said fuel cell, respectively (abstract; Fig. 1, 2). The fuel cell system according to claim 1, wherein the said raw material gas supplying means purges the interior of the said fuel cell on the anode side thereof after purging on the said cathode side thereof (abstract; Fig. 1, 2). The fuel cell system according to claim 1 or 2, comprising: a fuel gas pipe disposed between the said fuel gas supplying means and the said fuel cell battery on the cathode side thereof; a fuel gas on-off valve disposed along the said fuel gas pipe; an oxidizing agent gas pipe disposed between the said oxidizing agent gas supplying means and the said fuel cell on the anode side thereof; an oxidizing agent gas on-off valve disposed along the said oxidizing agent gas pipe; a raw material gas pipe connected to the said raw material gas supplying means and a part of the said oxidizing agent gas pipe disposed between the said oxidizing agent gas on-off valve and the said fuel cell on the cathode side thereof; and a raw material gas on-off valve disposed along the said raw material gas pipe (abstract; Fig. 1, 2). The fuel cell system according to claim 3, wherein a cathode side exhaust pipe through which an off-gas discharged from the said fuel cell on the cathode side thereof is discharged and a cathode side off-gas on-off valve disposed along the said cathode

side exhaust pipe and the said purge is carried out by opening the said cathode side off-gas on-off valve, opening the said raw material gas on-off valve for a predetermined period of time and then closing the said raw material gas on-off valve (abstract; Fig. 1, 2). The fuel cell system according to claim 4, wherein there are provided an additional raw material gas pipe connected to the said raw material gas supplying means and a part of the said raw material gas pipe disposed between the said fuel gas on-off valve and the said fuel cell on the anode side thereof, an additional raw material gas on-off valve disposed along the said additional raw material gas pipe, an anode side exhaust pipe through which an off-gas discharged from the said fuel cell on the anode side thereof is discharged and an anode side off-gas on-off valve disposed along the said anode side exhaust pipe and the said purge is carried out by opening the said raw material gas on-off valve, opening the said anode side off-gas on-off valve, and then opening the said additional raw material gas on-off valve for a predetermined period of time (abstract; Fig. 1, 2). The fuel cell system according to claim 5, wherein the operation of the said oxidizing agent gas supplying means and the said fuel gas supplying means of supplying the said fuel gas and the said oxidizing agent gas into the said fuel cell is carried out by opening the said anode side off-gas on-off valve, opening the said fuel gas on-off valve, opening the said cathode side off-gas on-off valve, and then opening the said oxidizing agent gas on-off valve (abstract; Fig. 1, 2). A method of starting a fuel cell system comprising a fuel cell which generates electric power from a fuel gas and an oxidizing agent gas, an oxidizing agent gas supplying means which supplies an oxidizing agent gas into the said fuel cell and a fuel supplying means which

supplies the said fuel gas into the said fuel cell, wherein the said fuel cell at least on the cathode side thereof is purged with a raw material gas to be used in the production of the said fuel gas before the said fuel gas and the said oxidizing agent gas are supplied into the said fuel cell during the starting of electricity generation of the said fuel cell (abstract; Fig. 1, 2). The method of starting a fuel cell system according to claim 7, wherein the interior of the said fuel cell on the said anode side thereof is purged after purging on the said cathode side thereof (abstract; Fig. 1, 2) . A program of computer-controlling a step of purging the said fuel cell at least on the cathode side thereof with a raw material gas to be used in the production of the said fuel gas before the said fuel gas and the said oxidizing agent gas are supplied into the said fuel cell during the starting of electricity generation of the said fuel cell in the method of starting a fuel cell system according to claim 7 (abstract; Fig. 1, 2). A recording medium carrying a program according to claim 9 which can be processed by a computer (abstract; Fig. 1, 2).

Thus, the invention as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made because although a full translation of the prior art of record has not yet been attained, the IDS filed 9/11/08, included a European Search Report, which included the English abstract of JP 62-190660, which was listed as an "X" reference relevant to claims 1-10.

***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sigafus et al., U.S. Pat. Application Pub. 2005/0159844, teach a heating and cooling control system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANGELA J. MARTIN whose telephone number is (571)272-1288. The examiner can normally be reached on Monday-Friday from 10:00 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Angela J. Martin/  
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